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**REMARKS**

In view of the following discussion, the Applicants submit that none of the claims now pending in the application is anticipated under the provisions of 35 U.S.C. §102 or obvious under the provisions of 35 U.S.C. §103. Thus, the Applicants believe that all of these claims are in allowable form.

**I. REJECTION OF CLAIMS 1-11, 23-36, AND 48-64 UNDER 35 U.S.C. § 102**

Claims 1-11, 23-36, and 48-64 stand rejected as being anticipated by the Agarwal et al. application (U.S. Patent Application Publication No. 2004/0179486, published September 16, 2004, hereinafter referred to as "Agarwal"). In response, the Applicants have amended independent claims 1, 26 and 51 in order to more clearly recite aspects of the invention.

In particular, the Applicants submit that Agarwal fails to teach, show or suggest the novel invention of examining the contents of a substring (e.g., a string, a packet, a segment, or the like) to determine, based on the contents, whether the substring matches a substring of interest, as recited in the Applicants' independent claims 1, 26, and 51.

By contrast, Agarwal merely teaches a method for reconstructing segmented packets transmitted over a network using sequence numbers, source information, and destination information. In other words, the system taught by Agarwal is unconcerned with the actual contents (e.g., data contents) of the packet segments, as they are not needed to determine the order of the packet segments. Moreover, Agarwal teaches against Applicants' invention. Using the system of Agarwal leads to reconstruction of the original information from segmented packets – a costly requirement that Applicants' invention actually seeks to avoid. In contrast, Applicants' system determines the presence of a string of interest without reconstruction as taught by Agarwal (See, Applicants' Specification at pages 1-2 (Background of the Invention), and especially at paragraph [0004]).

Notably, Applicants' invention positively claims the step of applying an automaton having a list of substrings of interest to content of a received substring, in order to

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determine whether the received substring matches a substring of interest, as claimed in Applicants' independent claims 1, 26 and 51. Examining the contents of the received substring facilitates a variety of data analysis techniques, including intrusion detection, packet filtering, load balancing, routing, and other network related operations that make decisions based on the contents of substrings. Specifically, Applicants' claims 1, 26 and 51 positively recite:

1. A method for detecting a substring of interest from a plurality of substrings that arrives out-of-order, comprising:  
receiving a substring with an index;  
determining whether a preceding span exists in a span set;  
determining whether a succeeding span exists in said span set; and  
applying an automaton having a list of substrings of interest to content of said substring to determine whether said substring matches one of said substrings of interest. (Emphasis added)

26. An apparatus for detecting a substring of interest from a plurality of substrings that arrives out-of-order, comprising:  
means for receiving a substring with an index;  
means for determining whether a preceding span exists in a span set;  
means for determining whether a succeeding span exists in said span set;  
and  
means for applying an automaton having a list of substrings of interest to content of said substring to determine whether said substring matches one of said substrings of interest. (Emphasis added)

51. A computer-readable medium having stored thereon a plurality of instructions, the plurality of instructions including instructions which, when executed by a processor, cause the processor to perform the steps of a method for detecting a substring of interest from a plurality of substrings that arrives out-of-order, comprising of:  
receiving a substring with an index;  
determining whether a preceding span exists in a span set;  
determining whether a succeeding span exists in said span set; and  
applying an automaton having a list of substrings of interest to content of said substring to determine whether said substring matches one of said substrings of interest. (Emphasis added)

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As discussed above, the system of Agarwal is completely devoid of any teaching or even suggestion relating to the desirability of examining the contents of a data packet (or segment thereof). Thus, the Applicants respectfully submit that claims 1, 26 and 51, as amended, fully satisfy the requirements of 35 U.S.C. §102 and are patentable thereunder.

Claims 2-11, 23-25, 27-36, 48-50, and 52-64 depend from independent claims 1, 26, and 51 and recite additional features. As such, and for at least the same reasons stated above with respect to claims 1, 26, and 51, the Applicants respectfully submit that claims 2-11, 23-25, 27-36, 48-50, and 52-64 also fully satisfy the requirements of 35 U.S.C. §102 and are patentable thereunder.

## **II. REJECTION OF CLAIMS 12-22 and 37-47 UNDER 35 U.S.C. § 103**

Claims 12-22 and 37-47 stand rejected as being made obvious by Agarwal. In response, the Applicants have amended independent claims 1 and 26, as discussed above, in order to more clearly recite aspects of the invention.

As discussed above, Agarwal fails to teach, show or suggest the novel invention of examining the contents of a substring (e.g., a string, a packet, a segment, or the like) to determine, based on the contents, whether the substring matches a substring of interest, as recited in the Applicants' independent claims 1 and 26. Thus, the Applicants respectfully submit that claims 1 and 26, as amended, fully satisfy the requirements of 35 U.S.C. §103 and are patentable thereunder.

Claims 12-22 and 37-47 depend from independent claims 1 and 26 and recite additional features. As such, and for at least the same reasons stated above with respect to claims 1 and 26, the Applicants respectfully submit that claims 12-22 and 37-47 also fully satisfy the requirements of 35 U.S.C. §103 and are patentable thereunder.

## **III. CONCLUSION**

Thus, the Applicants submit that all of the presented claims fully satisfy the requirements of 35 U.S.C. §102 and 35 U.S.C. §103. Consequently, the Applicants believe that all these claims are presently in condition for allowance. Accordingly, both


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reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring the issuance of a final action in any of the claims now pending in the application, it is requested that the Examiner telephone Mr. Kin-Wah Tong, Esq. at (732) 530-9404 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,

10/16/07  
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